

台灣的發展政策及島內人口移動

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本文旨在討論晚近台灣的發展政策對島內人口移動的影響及其在都市與鄉村所產生的問題，進而提供歐洲五國施行人口分散化政策的經驗供為我國減輕人口向都市集中的借鏡。

文中指出過去本省的發展政策着重工業發展及國際貿易，農業發展相對較少受到鼓勵。導致工商機關在台北及高雄等大都會區快速發展。人口也從鄉村向這些都會地區高度集中，且移動人口的選擇性也低。高度集中型態及低度選擇型態人口移動的結果一方面導致都市環境污染、交通擁擠、住屋短缺、公園及其他綠地缺乏及用水不足等問題，另一方面導致農村的勞動力短缺，農產成長率降低，公共設施困難及領導及計劃人才流失等問題。見於此作者乃建議為緩和這些問題的滋長應由改善發展及人口移動政策着手。可行的政策除現行的諸項農村建設方案外也應包括對大都會發展的調節，更有效刺激不景氣地區的發展及推展區域計劃等。這些措施在歐洲英、法、荷、瑞、意諸國均有經驗，其推行的目的在達人口分散化，可供我國之參考及借鏡。

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Male and Female Out-migration in Taiwan
An Examination of Characteristics and Propensities to Migrate *
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ABSTRACT

Many migration studies in Taiwan have focused their attention on male migrants explicitly or have not differentiated migration by sex. This paper hypothesizes that since men and women are subject to different migration situations we should expect some differences in their characteristics and propensities to migrate. Thus we may determine the impact of their movement on their place of origin and on their destination, in order to plan for social and economic facilities.

In this paper, migration is viewed as a behavioral process. The focus is on micro-level variables concerning individuals and their families. Primary data is used for this study, including a population of 197 male migrants and 88 female migrants; as well as 452 male non-migrants and 189 female non-migrants from 500 rural households in central Taiwan.

An attempt is made to compare male and female migrants in their individual characteristics and their propensities to migrate by selected individual and family variables. It is found that male and female migrants are similar in their characteristics of birth order, education, occupation; but different in age and destination. Migrant propensities vary greatly for male and female in terms of age, education of parent

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and occupation of parent and similar with regard to birth order, education, landownership, farm income and structure of the family. These findings suggest a first step for analysing differences between male and female migrants. We still need to find valid explanations for the above.

1. INTRODUCTION

The recent transformation of Taiwan's traditional agricultural economy to an industrial one is a significant factor in explaining population redistribution. Migration in Taiwan has often been studied in terms of a transfer of labor force from the agricultural to the industrial sector, in preference to studying other forms of spatial mobility. Industrial growth in Taiwan, which is said to have kept pace with urbanization (Liu, 1976) has led to the absorption of considerable manpower resources from rural areas. The development of export-oriented and labor-intensive industries has led to a significant growth of the female labor force (Hwa, 1976); the female labor force has grown from 29% of the total labour force in 1964 to 35% in 1973. A large proportion of this labor force inevitably comes from the rural areas. The increase in female employment, together with migration of females for marriage, has boosted the total female mobility rate so that it exceeds that of male migration. The total mobility rate as recorded in the Demographic Fact Book published by the Ministry of Interior is as follows:

<u>Year</u>	<u>Male</u>	<u>Female</u>
1960	213.6	207.6
1961	190.9	196.2
1962	199.6	205.9
1963	193.3	202.0
1964	195.1	208.3
1965	190.6	205.6
1966	219.6	231.6
1967	203.0	217.7
1968	218.4	234.4
1969	218.4	233.5
1970	224.7	238.9
1971	229.3	245.3
1972	229.9	250.5
1973	246.8	270.4
1974	244.9	269.0
1975	257.2	277.3

Yet very little is known about female migration and its relation to the socioeconomic development of this country. Previous studies on rural-urban migration have focused on male migrants with regard to job aspirations (Huang, 1971), determinants of rural to urban migration (Speare, 1973) and the migrants' adaptation in the city (Parish, 1972). Since aggregate statistics tell us that the mobility rate of females is higher than that of males, one begins to wonder if studies which use male migration data can be generalized to the entire population. Since women and men are subjected to different migration situations, there appears to be little reason to expect men and women to have the same determinants of migration or to expect the same spatial patterns to result from migration of the two sexes.

2. THE RESEARCH PROBLEM

The study reported here is of out-migration of men and women from rural villages to cities. A comparison of the migration propensities of male and female using individual and family attributes is attempted. We need more answers to "who moves?" to determine the impact of their move on their place of origin and on their destination, in planning for social and economic facilities.

In reviewing the findings on sex differential, it is found that the propensity to migrate is not selective according to sex (Shaw, 1975). It was reported that "varying patterns of sex-selective migration are found. These variations appear to be associated with economic aspects of women in society." (U.N., 1953). Ravenstein (1885) in his "law of migration". Stated that "females appear to dominate among short-journey migrants". It remains to be seen how male and female migration differ in Taiwan with regard to some selected characteristics. To date, there has not with regard to some selected characteristics. To date, there has not been any systematic study of migration differentials using primary data. Studies which use data from the registry records benefit from the availability of large samples, but the value is depreciated by the inaccuracy

of data, which has been well-discussed (Speare, 1974). Moreover, there has not been any study comparing migrants and non-migrants in their propensity to migrate.

In this paper migration is viewed not so much from the standpoint of aggregate numbers of people who move across administrative boundaries, as is usually the case, but rather as a behavioral process. The focus on micro-level variables concerning individuals and their families allows us to gain greater insight into the migration process for rural men and women.

3. THE DATA

For the purpose of this study, the sample population is migrants and non-migrants who are the employed population of the household. The same generation of migrants considered includes the children of the head of the household in the case of a stem family (consisting of grandparents, children and grandchildren) or the brother or sister of the household head in the case of an extended family (consisting of two or more brothers and sisters and their children). The younger generation who migrated with the family is not included since they moved with their parents and are therefore "passive" movers. Women who moved to marriage situations are not included in this study. As a result, this is a small sample of the population studied. There are 197 male migrants and 88 female migrants. Comparable non-migrants amount to 452 males and 189 females. The factors selected are attributes of individuals (age, birth order, education, occupation, destination), as well as those of the family as a whole (land ownership, total income, education of parent, occupation of parent, family structure). For each variable concerned, we examine some characteristics that distinguish male and female migrants, then examine differences in migration propensities between men and women whenever appropriate.

4. THE ANALYSIS

(1) Individual characteristics

(A) Age - From Table 1a, we can see that almost 100% of all the employed female migrants are between the age group 15 to 29, with the peak at the group 20-24. The employed male migrants are older, with the largest concentration in the group 20 to 34. Statistically, there is a significant difference in age between male and female migrants.

The migrant propensity shown in Table 1b demonstrates that male migrants have a greater tendency to move from the home village than non-migrants if they are in the age groups 15-19, 20-24 and 30-34, while female migrants have a greater tendency than non-migrants to move from the home village if they are in the age group 20-24, 25-29 and 40-44.

(B) Birth order - The second variable, birth order, shows a similarity in the proportions for male and female migrants. It is interesting to note in Table 2b that the propensity to migrate is also the same for male and female in terms of position in the family. The explanation suggested here is that the first born of either sex has greater responsibility at home, or has less chance of education compared with younger members of the sib set. The greater tendency for the second and fourth born children to migrate may be due to better information available after the older brother or sister has migrated.

(C) Education - The proportion of migrants in each level of education is statistically similar for males and females. There is also a striking similarity in the migration propensities between male and female as shown in Table 3b. There is a greater chance for the better educated to migrate since the migrant would be better qualified for urban jobs. It can also be said that the well educated may have better access to information in the city.

Table 1a. Age Distribution of Migrants**

	Total	15-19 (%)	20-24 (%)	25-29 (%)	30-34 (%)	35-39 (%)	40-44 (%)	45-49 (%)	50-54
Male	197	0	43 (0.22)	50 (0.26)	52 (0.26)	18 (0.09)	6 (0.03)	3 (0.02)	0
Female	88	0	49 (0.56)	11 (0.13)	0 (0)	0 (0)	1 (0.01)	0 (0)	0

** Significant at 0.01 level, $\chi^2 = 70.614$ d.f. = 8, $C_{0.01} = 20.1$, $C_{0.05} = 15.5$

Table 1b. Migrant Propensities by age Structure Among Males and Females

	15 (%)	15-19 (%)	20-24 (%)	25-29 (%)	30-34 (%)	35-39 (%)
Migrant	0(0.00)	25(34.72) [†]	43(38.14) [†]	50(29.24)	52(37.41) [†]	18(19.35)
Non-migrant	2(100.00)	47(65.28)	68(61.26)	121(70.76)	87(62.59)	75(80.65)
Total	2(100.00)	72(100.00)	111(100.00)	171(100.00)	139(100.00)	93(100.00)
Migrant	0(0.00)	27(27.27)	49(33.79) [†]	11(42.30) [†]	0(0.00)	0(0.00)
Non-migrant	3(100.00)	72(72.73)	96(66.21)	15(57.70)	1(100.00)	1(100.00)
Total	3(100.00)	99(100.00)	145(100.00)	26(100.00)	1(100.00)	1(100.00)
	40-44 (%)	45-49 (%)	50-54 (%)	Total (%)		
	6(14.63)	3(25.00)	0(100.00)	197(30.40)		
	35(85.37)	4(75.00)	7(100.00)	451(69.60)		
	41(100.00)	12(100.00)	7(100.00)	648(100.00)		
	1(50.00) [†]	0	0	88(31.77)		
	1(50.00)	0	0	189(68.23)		
	2(100.00)	0	0	277(100.00)		

+ Migrant propensities greater than overall migrant propensity.

Table 2a. Birth Order of Migrants

	Total	First (%)	Second (%)	Third (%)	Fourth (%)	Fifth & above
Male	197	75(0.38)	59(0.30)	33 (0.17)	20 (0.10)	10 (0.05)
Female	80	25(0.31)	22(0.28)	16 (0.20)	14 (0.17)	3 (0.04)

$\chi^2 = 3.905$

d.f. = 4 $C_{0.05} = 9.49$

Table 2b. Migrant Propensities by Birth Order Among Males and Females

	First (%)	Second (%)	Third (%)	Fourth (%)	Fifth & above (%)	Total (%)
Male						
Migrant	75(29.53)	59(33.15) [†]	33(30.56)	20(37.74) [†]	10 (28.57)	197 (31.37)
Non-migrant	179(70.47)	119(66.85)	75(69.44)	33(62.26)	25 (71.43)	431 (68.63)
Total	254(100.00)	178(100.00)	108(100.00)	53(100.00)	35 (100.00)	628 (100.00)
Female						
Migrant	25(30.49)	22(30.99) [†]	16(27.12)	14(51.85) [†]	3 (17.65)	80 (31.25)
Non-migrant	57(69.51)	49(69.01)	43(72.88)	13(48.15)	14 (82.35)	176 (68.75)
Total	82(100.00)	71(100.00)	59(100.00)	27(100.00)	17 (100.00)	256 (100.00)

+ Migrant propensities greater than overall migrant propensity.

Table 3a. Education of Migrants

	Total	No Education (%)	Primary school (%)	Junior high (%)	Senior high (%)	College & above
Male	197	2 (0.01)	61 (0.31)	69 (0.35)	43 (0.22)	22 (0.11)
Female	88	2 (0.02)	34 (0.39)	29 (0.33)	19 (0.22)	4 (0.05)

$$\chi^2 = 4.759$$

$$\text{d.f.} = 4, \quad C_{0.05} = 9.49$$

Table 3b. Migrant Propensities by Education Among Males & Females

		No Education (%)	Primary (%)	Junior high (%)	Senior high (%)	College & above (%)	Total (%)
Male	Migrant	2 (7.41)	61 (18.94)	69 (43.95) ⁺	43 (38.74) ⁺	22 (68.75) ⁺	197(30.35)
	Non-migrant	25 (92.59)	261 (81.06)	88 (56.05)	68 (61.26)	10 (31.25)	452(69.65)
	Total	27 (100.00)	322 (100.00)	156 (100.00)	111 (100.00)	32 (100.00)	649(100.00)
Female	Migrant	2 (28.57)	34 (24.29)	29 (35.80) ⁺	19 (43.18) ⁺	4 (80.00) ⁺	88(31.77)
	Non-migrant	5 (71.43)	106 (75.71)	52 (64.24)	25 (56.82)	1 (20.00)	189(68.23)
	Total	7 (100.00)	140 (100.00)	81 (100.00)	44 (100.00)	5(100.00)	277(100.00)

+ Migrant propensities greater than overall migrant propensity.

(D) Occupation - Male and female migrants are similar in distribution of occupations while male and female non-migrants display a significant difference (Table 4a). The majority of both male and female migrants are laborers. Male non-migrants are mostly farmers while female non-migrants are laborers. This leads one to think that occupational mobility is higher for male migrants than for female migrants.

(E) Destination - Differences in the destination are not significant statistically, but we can see a different pattern of migration behavior for men and women (Table 5). Since the rural households are originally located in central Taiwan, we can suggest the impact of distance on migration decisions between male and female. The majority of female migrants have moved to central Taiwan, suggesting that females tend to make short-distance moves. However, 46% of female migrants go to the northern region, suggesting a tradeoff between job opportunities and distance. Male migrants are not affected by distance as much as females, as shown by the high percentage of migrants to northern Taiwan. There are very few migrants to the south, even though we have recently developed export-oriented industries there.

(2) Migrant's Family Characteristics

The second part of the analysis is on the characteristics of the households from which the migrants come. Since a rural household may contain both male and female migrants, it would be meaningless to compare household characteristics of individuals. The variables discussed in the following represent the socioeconomic conditions of migrants in Taiwan.

(F) Landownership - The total area in Taiwan amounts to almost 36,000 Sq. km. of which 24.8% can be cultivated. With a large rural population, the average area of land owned is only 1.02 chia per rural household. Added to the limited farm resources per household, fragmentation of farm land due to inheritance is another problem posed for

Table 4. Occupation of Migrants

	Total	Farming (%)	Industrial (%)	Commercial (%)	Government (%)	Others (%)
Male	197	6 (0.03)	113 (0.57)	43 (0.22)	22 (0.11)	13 (0.07)
Female	88	1 (0.00)	61 (0.69)	15 (0.17)	3 (0.03)	8 (0.09)

$$\chi^2 = 7.698$$

d.f. = 4, $C_{0.05} = 9.49$

Table 5. Destination of Migrants

	Total	Central (%)	North (%)	South (%)
Male	126	48 (0.38)	73 (0.58)	5 (0.04)
Female	54	27 (0.50)	25 (0.46)	2 (0.04)

$$\chi^2 = 2.233$$

d.f. = 2, $C_{0.05} = 5.99$

agriculture. This is especially crucial to deriving higher productivity from the land by modern management and mechanization. Hence it is postulated that the smaller the farm the more difficult it is to improve the living conditions and the more likely it is for out-migration to occur. The migrant propensities shown in Table 6 demonstrate clearly that migrants have a greater tendency to move from the home village if their parents own less land. This is true of both sexes.

(G) Farm Income - Although the reliability of farm income information is hard to judge since the income is not received in terms of monthly salary, this variable is examined as a general indicator of the economic situation of the family. We can see that the propensity to migrate is greatest for the group whose family income is less than N.T.\$50,000 per year. Farming has not been a rewarding enterprise when compared with the industrial sector. The economic situation of the rural household is often aggravated by the occurrence of natural disasters such as typhoon or drought. It has therefore become popular for a farmer to seek a part-time job. The source of the income therefore comes from the non-farm sector as well. The amount of income within the family influences the decision to migrate, as needy farm families require income from outside to support a living.

(H) Education of parent - Another indicator of the socio-economic status of the family of origin is education. As shown in Table 8, among females, those whose parents have no education or have received junior high school education have a higher propensity to migrate. Males whose parents have an education of junior high school and above have a higher propensity to migrate. It is believed that the educational level of parents influences the migration decisions of individuals.

(I) Occupation of parent - The propensity to migrate is quite different for males and females. Females whose parents are

Table 6. Migrant propensities by Landownership of family in Chia

		1 ⁻ (%)	1-2 (%)	2-3 (%)	3-4 (%)	4-5 (%)	5 ⁺ (%)	Total (%)
Male	Migrant	139 (33.99) ⁺	41 (23.84)	9 (32.14) ⁺	8 (27.59)	0 (0.00)	0 (0.00)	197 (30.35)
	Non-migrant	270 (66.01)	131 (76.16)	19 (67.86)	21 (72.41)	6 (100.00)	5 (100.00)	452 (69.65)
	Total	409 (100.00)	172 (100.00)	28 (100.00)	29 (100.00)	6 (100.00)	5 (100.00)	649 (100.00)
Female	Migrant	66 (32.84) ⁺	21 (31.34)	0 (0.00)	1 (25.00)	0	0	88 (31.77)
	Non-migrant	135 (67.16)	46 (68.66)	5 (100.00)	3 (75.00)	0	0	189 (68.23)
	Total	201 (100.00)	67 (100.00)	5 (100.00)	4 (100.00)	0	0	277 (100.00)

+ Migrant propensities greater than overall migrant propensity.

Table 7. Migrant Propensities by Farmy Income (in thousand yen per year)

		5 ⁻ (%)	5-10 (%)	10-15 (%)	15-20 (%)	20 ⁺ (%)	Total (%)
Male	Migrant	78 (38.24) ⁺	55 (29.41)	31 (28.44)	4 (11.11)	19 (25.00)	187 (30.56)
	Non-migrant	126 (61.76)	132 (70.59)	78 (71.56)	32 (68.89)	57 (75.00)	425 (69.14)
	Total	204 (100.00)	187 (100.00)	109 (100.00)	36 (100.00)	76 (100.00)	612 (100.00)
Female	Migrant	32 (42.67) ⁺	34 (30.36)	11 (19.64)	3 (27.27)	5 (38.46) [†]	85 (31.54)
	Non-migrant	43 (57.33)	78 (69.64)	45 (80.34)	8 (72.73)	8 (61.54)	182 (68.16)
	Total	75 (100.00)	112 (100.00)	56 (100.00)	11 (100.00)	13 (100.00)	267 (100.00)

+ Migrant propensities greater than overall migrant propensity.

Table 8. Migrant Propensities by Education of Parent

	No Education (%)	Primary (%)	Junior high (%)	Senior high (%)	College & above (%)	Total (%)
Male						
Migrant	53 (23.04)	136 (35.51) ⁺	6 (35.29) ⁺	2 (50.00) ⁺	0 (0.00)	197 (31.02)
Non-migrant	173 (76.96)	247 (64.49)	11 (64.71)	2 (50.00)	1 (100.00)	438 (68.98)
Total	230 (100.00)	383 (100.00)	17 (100.00)	4 (100.00)	1 (100.00)	635 (100.00)
Female						
Migrant	24 (34.78)	56 (30.11)	6 (46.15)	2 (25.00)	0	88 (31.88)
Non-migrant	45 (65.22)	130 (69.89)	7 (53.85)	6 (75.00)	0	188 (68.12)
Total	69 (100.00)	186 (100.00)	13 (100.00)	8 (100.00)	0	276 (100.00)

+ Migrant propensities greater than overall migrant propensity.

in government occupations have a higher propensity to migrate, while propensity to migrate is high for males regardless of parents' occupation (Table 9).

10. Structure of Family - There are three types of families that the migrants belong to. The nuclear family consists of parents and their children, the stem family consists of three generations with the grandparent as the head of household, and the extended family consists of two or more nuclear families which originally belong to the stem family. In general, the extended family is becoming less common while nuclear families have grown in proportions. As shown in Table 10, migration propensity is greatest for children from both nuclear and the extended family for both sexes. It is thought that the children from nuclear families have a better chance of receiving education and are prone to develop independent character, while the extended family would produce children who are more dependent and have less authority in making decisions to move, or have less tendency to do so (Liao, 1977). However, this explanation does not exemplify itself in this research.

5. CONCLUSIONS AND IMPLICATIONS OF THIS STUDY

Of the five hundred families investigated, there are 197 male migrants and 88 female migrants who are employed and who originally are children of the head of household in the case of a stem family or the brother or sister of the household head in the case of an extended family. This selection therefore includes persons who are "active" movers. Women who moved to marriage situations are "passive" movers and are excluded in this study. The high total mobility rate of females inevitably includes moves due to marriage.

In this study an attempt is made to compare male and female migrants in their characteristics and the propensity to migrate by selected individual and family variables. It is found that male and female

Table 9. Migrant Propensities by Occupation of Parent

	Farming (%)	Industrial (%)	Commerce (%)	Government (%)	Others (%)	None (%)	Total (%)
Male	Migrant	161 (31.32) ⁺	2 (50.00) ⁺	14 (63.64)	2 (33.33)	0	18 (20.22)
	Non-migrant	353 (68.68)	2 (50.00)	8 (36.36)	4 (66.67)	0	71 (79.78)
	Total	514 (100.00)	4 (100.00)	22 (100.00)	6 (100.00)	0	89 (100.00)
Female	Migrant	75 (30.36)	0 (0.00)	2 (25.00)	2 (66.67)	0 (0.00)	9 (60.00)
	Non-migrant	172 (69.64)	1 (100.00)	6 (75.00)	1 (33.33)	2 (100.00)	6 (40.00)
	Total	247 (100.00)	1 (100.00)	8 (100.00)	3 (100.00)	2 (100.00)	15 (100.00)
							88 (31.88)
							188 (68.12)
							276 (100.00)

+ Migrant propensities greater than overall migrant propensity.

Table 10. Migrant Propensities by Family Structure

		Nuclear (%)	Stem (%)	Extended (%)	Total (%)
Male	Migrant	72 (48.00) ⁺	56 (43.08) ⁺	69 (18.70)	197 (30.35)
	Non-migrant	78 (52.00)	74 (56.92)	300 (81.30)	452 (69.65)
	Total	150(100.00)	130(100.00)	369(100.00)	649(100.00)
Female	Migrant	47 (33.33) ⁺	23 (36.51) ⁺	18 (24.66)	88 (31.77)
	Non-migrant	94 (66.67)	40 (63.49)	55 (75.34)	189 (68.23)
	Total	141(100.00)	63(100.00)	73(100.00)	277(100.00)

+ Migrant propensities greater than overall migrant propensity.

migrants are similar in their characteristics of birth order, education, occupation; but different in age and destination. Migrant propensities vary greatly for male and female in terms of age, education of parent and occupation of parent. These findings suggest a first step for analyzing differences between male and female migrants. We need to investigate and give valid reasons for the similarities and differences found in migrant's characteristics or the propensity to migrate. For example, we need to know the impact of distance on migration behavior, in terms of interaction between potential migrants with the destinations and the perception of opportunities in the city. Since we assume that males and females are socialized to different psychology and goals at the outset, we should find out how they are different with regard to the total process that leads to migration, the adaptive strategies used and the connections with their rural origin after they migrated. Furthermore, previous studies on migration have focused on the rural households at the origin. There is relatively little research on individual migrants who have arrived at the city. We can compare migrants with non-migrants in the city and identify differences between male and female.

The comparison of male and female migration is also a prelude to more attention paid to female migrants. The economic significance of female migration in Taiwan has only been vaguely alluded to in the study of light industries (Huang, 1977). We do not yet know what social and demographic consequences have been produced by female migration in Taiwan. The social significance of females in rural-urban migration has been demonstrated in a few countries such as Thailand, Phillipiness and Brazil. The demographic aspect has even greater significance. It has been found that employment and education have brought about lower fertility such as in the United States, Arab Middle East, Thailand, Turkey and Taiwan. Although research on the linkage between higher status of women and reduced fertility is still missing, the inverse relationship between women's status and fertility has led to the proposal that the status of women should be regarded as a viable population policy vari-

able in Asia (Syed, 1977). It is without wonder that social scientists have shown an increasing interest in the spatial mobility of women.

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